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ABSTRACT

A model experience-based career education program for secondary school students in Philadelphia, called the Academy for Career Education, has been operated by Research for Better Schools, Inc. (RBS), for three years. It utilizes employer/community participants as instructional agents and learning sites for career exploration and specialization, delivers career guidance/counseling services to students, and provides for individualized basic skill instruction. RBS does not regard the program developed for the academy as either a rejection of, or a free-standing alternative to secondary schools, but rather as a program to be used in conjunction with existing programing, and one which has yet to undergo field testing in various environments. The academy's past and future development is considered from a research, development, and dissemination perspective with relation to prototype development, dissemination, diffusion, replication, transportability and nurturance. The effectiveness of the prototype in the developmental setting has been determined and RBS will in the future continue to work with more user organizations towards its dissemination. This work entails its testing and adaptation on various environments, followed by necessary redevelopment. It also entails the testing of the program's diffusion strategy and assumptions, and the development of a change support system. (Author/SA)

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THE ACADEMY FOR CAREER EDUCATION:

DIFFUSION ISSUES

by

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THE ACADEMY FOR CAREER EDUCATION: DIFFUSION ISSUES

The present paper is focused on issues related to the continued development and diffusion of an innovation, generically called experience-based career education. An overview of the innovation is presented first. Then, the innovation is discussed in terms of diffusion issues.

I. ACADEMY OVERVIEW

Existing in Philadelphia is a program of experience-based career education for secondary school students. This program is called the Academy for Career Education. It utilizes employer/community participants as instructional agents and learning sites for career exploration and specialization, delivers career guidance/counseling services to students, and provides for individualized basic skill instruction.

Research for Better Schools, Inc. (RBS) has been responsible for developing, testing and operating the program under a contract with the National Institute of Education (NIE). The prototype has been under development for four years and is in its third year of operations. The Academy program has served students in Philadelphia for three school years. It has expanded from an enrollement of 100 the first year to 275 students during the current year. During this period of time, the program's physical location and the methods of conducting the program, selecting students and providing auxiliary courses have changed. This evolution is not documented in the present paper.

The Academy presently operates as pait of and is housed within one of the high schools of the School District of Philadelphia. It serves 275 students, grades nine through twelve, who are enrolled in that school. During the school year, these students receive approximately half of their school credits from participation in the Academy program and the other half from participation in the regular curriculum of the high school.

The Academy program consists of three principal instructional components: Career Exploration and Specialization, Career Guidance, and Academic Resource Center. For Career Exploration, students have available a series of approximately twenty clusters of resource sites ranging through Animal Resources, Construction, Finance, Social Service, and Transportation. Approximately eighty related companies or agencies are using their combined resources and sites to plan and conduct cluster activities.

Each cluster program is developed jointly by representatives of the participating resource sites and RBS; the programs are conducted by employees of the participating companies and agencies. For each twelve week academic quarter, students select one of the available clusters for their Career Exploration experience. Students are involved in the cluster sites for at least one full day each week. These first-hand resource sites programs are designed to allow students to learn about the economic community, to test their own vocational interests, and to obtain information for their career planning. Activities within the cluster programs are varied and may range from listening to a presentation about the company involved to traveling with a road crew.

After students have made a tentative career choice, they may elect to participate in a Career Specialization. Career Specializations are programs designed for individual students to investigate a single job or resource site in depth. The student defines objectives for each specialization, and activities are constructed with participating companies and agencies to pursue those objectives. Career Specialization operates on the same twelve-week cycle as Career Exploration. Together with Career Exploration, it constitutes the student's direct experience in vocational environments.

Career Guidance is the second major instructional component in the Academy program. This component is viewed as crucial in helping students to understand themselves, to assimilate their experiences in the program and to understand career choice within the context of their own values. In order to accomplish this, two activities are provided. Each student participates in small group guidance sessions which meet weekly for an hour and a half. In these sessions, an eclectic curriculum which draws upon students' resource site experiences is employed to promote self exploration, values clarification, life skills, motivation to learn, career planning, and integration of program activities. Students also have individual counseling sessions at least once a month, and, since their counselors also perform the resource site liaison, substantial interaction with counseling personnel is available.

The third principal instructional component is the Academic Resource Center. The Center focuses on the development of skills in communication and mathematics. The Individualized Learning for Adults approach is

employed, using a wide variety of materials and resources to construct learning programs for each student. Students are scheduled into the Center for approximately six hours per week. After their strengths and weaknesses have been diagnosed, students begin to work through an individually prescribed program at their own rate with trained teachers available to help as needs arise and to monitor programs. Activities in the Academic Resource Center are integrated with other program elements where appropriate and possible.

Intended student outcomes of the Academy program and its components are:

1. The acquisition by students of increased mastery of basic academic skills.
2. The acquisition by students of increased career awareness and knowledge.
3. The development of enhanced student attitudes toward learning environments.
4. The development of positive attitudes toward program resources by students and other participant groups.

At the heart of the Academy program is the assertion that for many students existing secondary school education does not include sufficient cognitive or affective preparation for adult life. The program also posits that direct experience in vocational/adult environments can function as a major curriculum component of a structured educational program.

In RBS' opinion, development of the Academy prototype has been completed. Evidence from operational testing of the prototype has determined the program's effectiveness in meeting its intended student outcomes.[1] However, operational testing to date has been restricted to the initial developmental setting, and materials, training and assistance to facilitate the program's use in other sites are still in the process of being prepared.

II. THE ACADEMY IN AN R,D&D CONTEXT

The Academy is a complex social innovation which entails major structural and programmatic changes in local school systems. Although the Academy can be characterized and used as an alternative to traditional secondary school programs, RBS has not developed and does not regard the prototype either as a rejection of secondary school programming or as a free-standing alternative to secondary schools. Rather, the prototype has been developed and is regarded as a program which is to be used in conjunction with existing programming and which can influence and be influenced by existing programming.

RBS' planning and work with the Academy are predicated on a conception of educational change which is fundamentally consistent with the process of the R,D&D strategy as it has been evolving in the United States since

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[1]Keith M. Kershner and Mark W. Blair, "Evaluation of the Research for Better Schools Career Education Program" (Philadelphia, Pa.: Research for Better Schools, Inc., December, 1974).

the enactment of Title IV, ESEA, in 1965.[2] This conception recognizes and hopefully avoids the seeming linearity and over-rationality of the R,D&D process.[3] From an R,D&D perspective, the Academy's past and future development may be characterized as follows:

Prototype Development. Operation/implementation of the Academy program has historically proceeded at a faster pace than the formal development of the program. A "developed" program was not handed to implementors prior to the program's operationalization. Rather, a general program design was created to provide direction for and to be operationalized by implementors, including employer/community participants. Development in this setting had more to do with providing assistance to implementors in their attempts to operationalize the design and with learning and attempting to generalize from these attempts of the implementors than vice versa. Implementors significantly affected both the direction and nature of development. RBS assumes that implementors in other sites will be willing and able to affect the development of the prototype in their locales.

Prototype development has been completed. The production of user guides, manuals, and training support systems to spread the program to other sites is currently underway.

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[2]Hendrick D. Gideonse, Educational Research and Development in the United States (Washington, D. C.: U. S. Government Printing Office, 1970).

[3]Egon G. Guba and David L. Clark, "The Configurational Perspective: A Challenge to the Systems View of Educational Knowledge Production and Utilization" (Bloomington, Ind.: Indiana University, November, 1974).

Dissemination. In the flow of the R,D&D process, dissemination is usually defined as that stage in which the producing agency furnishes descriptive information about a product to both general and selected audiences. In part dissemination is simply a matter of complying with the obligation that a publicly-supported, scientific organization owes its patrons and the professional community. In its more functional uses, dissemination is an overt effort to encourage the product's being chosen for installation and institutionalization, that part of the R,D&D process producers call diffusion and users call adoption.

RBS views dissemination as occuring at all stages of the R,D&D process. Hence, information on prototype development was and is being disseminated to general and selected audiences for the purpose of promoting an awareness of the program and of allowing these audiences to influence its further direction and development.

Diffusion. Properly, the potential population for diffusion is targeted early in the R,D&D process. Few products are intended for an undifferentiated universe. Products are, ideally perhaps, directed at fulfilling identified educational needs, rather than merely at resolving problems, and are more, rather than less, specific by user type.

Field-test and diffusion are closely related in practice. Going back to some redevelopment of product after it has been marked ready for diffusion is entirely predictable.

RBS is at the point of formally embarking on diffusion activities. The target audience remains relatively undifferentiated, although the

greatest use of the program will probably be in urban settings. Field tests outside of the initial development setting are thought of as early parts of the diffusion effort.

Replication. In principle, a prototype invented and developed through a well-disciplined research and development process should have earned certification before being judged ready for diffusion by the producing agency. The early instances of diffusion allow further testing of complex products, testing for which controlled field-test conditions do not always suffice. In any case, R&D products ought to be resistive to the unaided and ill-considered adapting ventures of adopting organizations, such as would be necessary were the new practice only an idea offered for tryout. RBS believes that even small modifications should be a concern of the producer, at least during the early aspects of diffusion.

Transportability. Transportability is a test of the feasibility of diffusing an educational product into a particular field situation. Transportability is a major variable assayed in the on-going evaluation to which products in development are subjected, and it is often so complex that the first actual installation in other settings must be treated as experimental tests of feasibility.

Nurturance. RBS recognizes the user's period of installation as a time when nurturance is required. Adopting organizations need help with their implementation problems, but the opportunity the producer has to learn about how the product might be refined and how future adopters might more effectively install and institutionalize is also valuable.

The Academy as a Special Case in R,D&D. The Academy is a special case in R,D&D for two reasons: (1) it is not really a completed and finished product (or stated positively, it is more than a product); and (2) full field test for evaluation and redevelopment will not have been experienced before its diffusion. Some modifications in diffusion strategy are therefore required.

John Hemphill's well-known typing of R&D approaches into "product development" and "change support"[4] does not altogether illuminate the nature of this special case, but it helps. Diffusing a program, rather than a "finished product," combines both approaches. A program is enough like a product and enough different from an idea to demand fidelity, especially if, like this one, it has had considerable development, piloting and evaluation. Still, it is an intrinsic development assumption and strategy that the program will require variant adaptations in both form and process in subsequent installations. It is assumed that this career education alternative is an educational subsystem more "open" than most and thus especially sensitive to variations in environment. Further, it is posited that users can and will assume a development mentality in their utilization of the program, given adequate nurturance and support. If this is the case, then change support functions must go well beyond technical assistance.

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[4]John K. Hemphill, "Educational Development," Educational Development: A New Discipline for Self-Renewal, John Hemphill and Fred Rosenau, editors (Eugene, Ore.: Center for the Advanced Study of Educational Administration, 1973).

The role of an R&D agency in transporting a program, especially one which has not yet been totally developed and field tested in various environments, is not altogether known. However, the role certainly combines dissemination, diffusion and technical assistance ("the standard agency functions") with involvements: (1) in the process of creating a readiness for adoption, (2) in the substance of the practice through experimentation in field-test settings, and (3) in continued program development, both by the users and the producer.

Of course, there are some risks to the development agency in such deep involvement, especially if it were to play the role of "change agent" dealing with a "client." The risks are calculated ones, born of necessity, and can be minimized by a clear assumption of shared responsibility and accountability by the R&D organization and user organizations. There are also risks to users if the key figures in each site were to perceive themselves as being overwhelmed by and too dependent on the development agency. No surer impediment to success could occur.

III. SUMMARY

RBS has produced and tested a prototype of experience-based career education which: (1) calls for user development as part of its installation and institutionalization procedures; (2) is designed for use in conjunction with existing secondary school programming, not as a self-contained, free-standing alternative school; and (3) has yet to undergo field test in various environments. The effectiveness of the prototype in the developmental setting has been determined. In the future, RBS will continue to

work with an expanded assortment of user organizations toward the diffusion of this experience-based program. This work entails the testing and adaptation of the prototype in various environments and therefore the subsequent redevelopment of the program. It also entails the testing of the program's diffusion strategy and assumptions and the development of a change support system.

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